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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/612,288      | 07/07/2000  | Kenichiro Sakai      | 826.1611/JDH        | 8400             |

21171 7590 10/04/2005

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EXAMINER

WU, JINGGE

ART UNIT PAPER NUMBER

2623

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/612,288

Applicant(s)

SAKAI ET AL.

Examiner

Jingge Wu

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5,9,10 and 14-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-5,9,10 and 14-17 is/are allowed.
- 6) ☐ Claim(s) 18 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/18/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

The abandonment action has been withdrawn according to the decision of petition filed on August 25, 2005.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on February 16<sup>th</sup>, 2005 has been entered.

Applicants' amendment, filed on August 11, 2005 has been entered and made of record. An action on the RCE follows.

***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: in claim 18, "determining a text reading orientation of text in the line" is not supported expressly in the specification. In claim 19, "determining a text reading orientation of text in the line responsive to the line orientation including a text orientation where the text is rotated out of the plane of the text" is not supported in the specification.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 18 and 19 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for detecting line orientation and character orientation, does not reasonably provide enablement for “determining a text reading orientation of text in the line responsive to the line orientation including a text orientation where the text is rotated out of the plane of the text”. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. Correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6137905 to Takaoka in view of US5513304 to Spitz (a reference of record) and US 5381163 to Yokoyama et al. (references of record).

As to claim 18 (best understanding by the Examiner), Takaoka discloses a method, comprising:

determining the scanning direction/orientation of text in responsive to the line orientations (figs. 6A and 6B) by extracting a character from the lines, determining a

recognition likelihood of the character in among extracted characters (fig. 6C, col. 16 line 42-col. 17 line 20); and

orienting the input document image to be a properly orientated document image based on a result of detection made by the character orientation detection unit (col. 17 lines 21-25).

Takaoka does not explicitly mention determining line orientation determining and mirror image flipping.

Splitz, in an analogous environment, detecting an actual orientation of a document by determining a line orientation of an input document image is either vertical or horizontal (Fig. 1, element 44 and 46, col. 6 lines 16-27).

Furthermore, Yokoyama, in an analogous environment, discloses flipping character mirror image and recognizing the character (Fig. 56A-B, col. 28, line 59-col. 30 line 64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the schemes of Spitz and Yokoyama in the method of Takaoka in order to accurately determine the orientation of the document image (Takaoka, col. 1-col.2, Yokoyama, col. 14 line 53-col. 15 line 52).

As to claim 19, the combination of Spitz, Takaoka and Tokoyama teaches all limitations (see claim 18) except the text is rotated out of the plane of text.

However, the claim language is deemed not to be supported by the specification. A proper support is the text is rotated (0 to 270 degrees). Takaoka teaches the same limitation in fig. 6C .

***Allowable Subject Matter***

Art Unit: 2623

Claims 1, 9, 14-17 are allowed. Claims 2-5 and 10 depend from claim 1 and 9 respectively, therefore, are allowed.

***Contact Information***

Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (571) 272-7429. He can normally be reached Monday through Thursday from 8:00 am to 4:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (571) 272-2600.

The Working Group Fax number is (571) 273-8300.

**Jingge Wu**

Primary Patent Examiner

